

III. Listing of the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An intervertebral implant comprising:
a first member for fixedly engaging a first vertebral body, the first member comprising a first surface with a first curve defining a concave recess, the first curve having a first radius of curvature;

a second member for fixedly engaging a second vertebral body, the second member comprising a second surface with a second curve defining a convex projection, the second curve having a second radius of curvature smaller than the first radius of curvature; and

a center member adapted for placement at least partially between the first member and the second member, the center member being in articulating engagement with the first and second members and including:

a convex third surface for movably mating with the concave recess defined by the first curve of the first surface, the third surface having a third radius of curvature substantially similar to the first radius of curvature,

a fourth surface having a concave central portion and a convex outer portion extending substantially around the concave central portion, the concave central portion for movably mating with the convex projection defined by the second curve of the second surface, the concave central portion having a fourth radius of curvature substantially similar to the second radius of curvature and the convex outer portion having a fifth radius of curvature substantially similar to ~~or larger than~~ the first radius of curvature;

wherein the first member is translatable with respect to the second member and the first and second members are biased towards a central alignment along a longitudinal axis passing through the first and second vertebral bodies.

2. (Previously Presented) The intervertebral implant of claim 1 wherein the first radius of curvature is constant and has a first center point.

3. (Previously Presented) The intervertebral implant of claim 2 wherein the second radius of curvature is constant and has a second center point.

4. (Previously Presented) The intervertebral implant of claim 3 wherein central alignment comprises alignment of the first and second center points along the longitudinal axis.
- 5-6. (Canceled)
7. (Previously Presented) The intervertebral implant of claim 1 wherein the first surface has a combination of curved and flat portions.
8. (Canceled)
9. (Previously Presented) The intervertebral implant of claim 1 wherein the center member articulates between the first and second surfaces as the first member is translated relative to the second member.
10. (Canceled)
11. (Previously Presented) The intervertebral implant of claim 1 wherein the convex projection of the second surface is has a semi-spherical protrusion.
- 12-13. (Canceled)
14. (Original) The intervertebral implant of claim 1 wherein the first member is translatable with respect to the second member along an anterior-posterior axis.
15. (Original) The intervertebral implant of claim 1 further comprising a neutral position and a first position wherein in the first position, the implant is biased to move toward the neutral position.
16. (Original) The intervertebral implant of claim 15 wherein in the first position, the first curve is in closer conformance with the second curve.

17. (Original) The intervertebral implant of claim 1 wherein the first curve is wider than the second curve.

18. (Previously Presented) The intervertebral implant of claim 1 wherein the first member is superior to the second member along the longitudinal axis.

19-23. (Canceled)

24. (Previously Presented) The intervertebral implant of claim 1 wherein the first member includes a first engagement surface for engaging a first vertebral endplate of the first vertebral body.

25. (Previously Presented) The intervertebral implant of claim 24 wherein the first engagement surface is shaped to substantially conform to a first shape of the first vertebral endplate.

26. (Previously Presented) The intervertebral implant of claim 25 wherein the first engagement surface is substantially flat.

27-28. (Canceled)

29. (Previously Presented) The intervertebral implant of claim 25 wherein the second member includes a second engagement surface for engaging a second vertebral endplate of the second vertebral body.

30. (Previously Presented) The intervertebral implant of claim 26 wherein the second engagement surface is shaped to substantially conform to a second shape of the second vertebral endplate.

31. (Previously Presented) The intervertebral implant of claim 1, wherein the convex third surface and the fourth surface of the center member each have substantially circular circumferences.

32. (Previously Presented) The intervertebral implant of claim 31, wherein the circular circumference of the convex third surface is substantially similar to the circular circumference of the fourth surface.

33. (Previously Presented) The intervertebral implant of claim 32, wherein the center member further includes a sidewall extending between the convex third surface and the fourth surface.

34. (Previously Presented) The intervertebral implant of claim 33, wherein the sidewall is substantially planar.

35. (Currently Amended) An intervertebral implant comprising:
a first member for engaging a first vertebra, the first member comprising a concave first surface, the concave first surface having a first radius of curvature;
a second member for engaging a second vertebra, the second member comprising a convex second surface and a tapered surface extending outwardly from the convex second surface, the convex second surface having a second radius of curvature, the second radius of curvature being smaller than the first radius of curvature; and
a center member ~~adapted for placement~~ positioned at least partially between the first member and the second member and in articulating engagement with the first and second members, the center member comprising:
a convex third surface for articulating with the concave first surface of the first member, the third surface having a third radius of curvature substantially similar to the first radius of curvature,
a concave fourth surface for articulating with the convex second surface of the second member, the concave fourth surface having a fourth radius of curvature substantially similar to the second radius of curvature,

a convex fifth surface extending substantially around the concave fourth surface, the convex fifth surface having a fifth radius of curvature substantially equal to the first radius of curvature, the convex fifth surface configured for articulating with the tapered surface of the second member, and

a sidewall extending between the convex third surface and the convex fifth surface, the sidewall having a substantially circular outer profile;

wherein the first member, second member, and center member are formed of a relatively rigid biocompatible material.

36. (Previously Presented) The intervertebral implant of claim 35 wherein the first radius of curvature is substantially constant.

37. (Previously Presented) The intervertebral implant of claim 36 wherein the second radius of curvature is substantially constant.

38. (Previously Presented) The intervertebral implant of claim 35 wherein the convex second surface comprises a substantially semi-spherical protrusion.

39. (Previously Presented) An implant for positioning between a first vertebra and a second vertebra, the implant comprising:

a first member having a first upper surface for engaging the first vertebra and a first lower surface, the first lower surface comprising a concave first portion having a first radius of curvature;

a second member having a second lower surface for engaging the second vertebra and a second upper surface, the second upper surface comprising a convex second portion having a second radius of curvature, the second radius of curvature being smaller than the first radius of curvature; and

a third member positioned at least partially between the first and second members, the third member comprising:

a third upper surface comprising a convex portion for articulating with the concave first portion of the first member, the convex portion of the third upper surface having a third radius of curvature substantially similar to the first radius of curvature,

a third lower surface comprising:

a concave central portion for articulating with the convex second portion of the second member, the concave central portion having a fourth radius of curvature substantially similar to the second radius of curvature,

a convex outer portion surrounding the concave central portion, the convex outer portion having a fifth radius of curvature substantially equal to the first radius of curvature, and

a sidewall extending between the third upper surface and the convex outer portion of the third lower surface, the sidewall being substantially cylindrical.